



Deputy Under Secretary of Defense

## Advanced Systems & Concepts

SUCCESS STORY

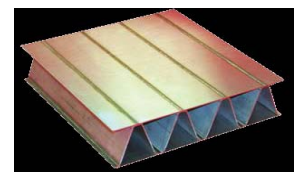
### Defense Manufacturing Technology Achievement Award Presented to ManTech Project Enabling Lightweight Shipbuilding Materials



*2008 Defense Manufacturing Technology Achievement Award presented to LASCOR project team (l-r) Dave Roberts, Bath Iron Works; Steve Webber, Applied Thermal Sciences; Greg Woods, Navy ManTech Program, Office of Naval Research; Adele Ratcliff, Director, DoD ManTech Program; and Kevin Stefanick, Navy Metalworking Center/Concurrent Technologies Corporation*

The ManTech LASCOR project, which enables lightweight ship materials in future Navy ships, is the recipient of the 2008 Defense Manufacturing Technology Achievement Award. The award, which is given out annually for technical accomplishment, epitomizes the ManTech program's vision, "to realize a responsive world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle."

A material offering weight reduction for future naval vessels and improving combat effectiveness and maneuverability is LASer-welded corrugated-CORe (LASCOR) pictured right. It is a laser-welded, "sandwich" panel, similar in design to corrugated cardboard. It has two metal sheets, laser-welded to a corrugated metal core.



The project demonstrated that the sandwich panels could be cost-effectively manufactured using hybrid-laser welding and roll-formed cores in traditional 78" by 240" panel sizes that meet structural requirements for ship decks and bulkheads. Throughout the project's course, panel cost was reduced 70 percent.

Implementation of LASCOR sandwich panels will result in weight and cost savings for future ships. The project demonstrated that more than 200 long tons of weight savings could be achieved for the new Ford Class aircraft carrier, with preliminary designs prepared for applications such as elevator doors, island enclosure bulkheads, and interior decks. In addition, LASCOR panels, which save considerable acquisition cost, have been incorporated into the product model for planned ship, DDG 1000, with orders placed for first and second hulls.

For more information on the ManTech program, visit: [www.dodmantech.com/](http://www.dodmantech.com/).